

**VASTox plc**  
("VASTox" or "the Company")

## **Initiation of a fourth proprietary drug discovery programme**

**Oxford, UK, 22 October 2005 – VASTox plc** (AIM: VOX), the drug discovery and services business, is pleased to announce that it has initiated a new drug discovery programme focused on the bone morphogenetic protein (BMP) signaling pathway and, in particular, its role in osteoarthritis. This is VASTox's fourth proprietary programme alongside Duchenne Muscular Dystrophy, Spinal Muscular Atrophy and Tuberculosis.

VASTox will use its chemical genomics platform technology involving zebrafish embryos (*Danio rerio*) to screen its proprietary library of chemicals. By searching for small molecules that perturb the BMP pathway, VASTox looks to generate lead compounds with efficacy in the treatment of osteoarthritis. The zebrafish, as a vertebrate, shows a strong genetic similarity with humans and VASTox's own zebrafish make an ideal screen for BMP. This programme leverages off the years of research by Professor Roger Patient of the Weatherall Institute of Molecular Medicine, University of Oxford, who sits on the Company's Scientific Advisory Board. VASTox will retain all the intellectual property arising from this programme.

Osteoarthritis is one of the most common diseases of old age and there are currently no treatments which directly treat the disease process. Degeneration of the cartilage in the joints, especially the hands, knees and hips, causes bones to rub together - causing damage and often debilitating pain. Current therapies focus on relieving pain or swelling but cannot improve the underlying condition because they do not cause damaged cartilage to grow back.

### **Dr Steven Lee, CEO of VASTox, said:**

"As we stated in our interim results, we will end the year by initiating another proprietary drug discovery programme. Our fourth programme combines our inhouse expertise with zebrafish and medicinal chemistry with the skills and research breakthroughs of Professor Roger Patient in an exciting area of drug discovery. We continue to demonstrate our business model of capturing world-leading academic science at the juncture of applied drug discovery where it can no longer continue at University benches. Since IPO, our base has been built in terms of facilities, people and infrastructure to seamlessly carry this out again and again."

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**Notes for Editors:**

**About VASTox plc**

VASTox is a chemical genomics technology company that provides services to the pharmaceutical industry and discovers and develops proprietary novel drugs. The company's technology platform aims to use high volume, high content screening using zebrafish and fruitflies to provide a high level of predictability of the efficacy and toxicity of potential drug compounds in humans. This has the potential to dramatically decrease the time and cost of drug discovery and development. VASTox was formed in January 2003, from the University of Oxford, by some of the UK's foremost scientists who have taken a highly creative approach to the problems involved in drug discovery and who have a proven record in delivering technological excellence. The company listed on the London Stock Exchange AIM in October 2004.

**About Signalling pathways, Bone Morphogenetic Proteins (BMPs) and Osteoarthritis**

Signalling pathways are the subject of intense research and commercial activity in the life sciences industry. These pathways refer to a sequence of biological processes that are essential for the healthy development of embryos. Once the embryo has developed the pathways become more specialised, in the case of the BMPs, the pathway becomes vital for the healthy regulation of bone and cartilage. The signalling pathway that involves BMPs are well conserved between zebrafish and humans and are essential in the development of the heart, central nervous system, bones and cartilage.

Other well-researched pathways include 'wnt' and 'hedgehog' signalling pathways, both of which have been implicated in a wide range of diseases and disorders from cancers to alopecia. VASTox believes that its BMP programme will offer similar potential. There is growing scientific evidence that the BMPs may play important roles as tumour suppressors as well. Therefore this programme has additional potential utility in the field of cancer.

Osteoarthritis is the most common form of arthritis, affecting nearly 5 million people in the UK alone. The disease causes the normally smooth cartilage in joints to become brittle and weak. Bone beneath then thickens to compensate, further damaging the cartilage and causing the bones to rub together. The condition is very painful and makes movements of the fingers, knees and hips difficult. There is no cure for osteoarthritis as cartilage cannot grow back. Current treatments focus on reducing inflammation and pain.

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